Afar Dallol Drilling (Ethiopia)

ICDP Workshop - Addis Ababa - 28-31 Aug 2023

The Danakil Depression in the northern part of the Afar triangle is an ideal field laboratory where the interactions between tectonics, magmatism, climate, and biosphere can be constrained during continental breakup. The ADD-ON project (Afar Dallol Drilling) aims to bring together scientists at all levels to get insights into the sedimentary facies evolution in an active rift setting (Danakil Depression, Afar, Ethiopia) paced by global environmental fluctuations and their interplay with volcano-tectonic events. The second ADD-ON workshop will be held as an in-presence event in Addis Ababa during 28-31 August 2023 to fine-tune a full drilling proposal for submission to ICDP in January 2024.

The overarching goal of the project is to get insights into detailed sedimentary facies evolution in an active rift paced by global environmental fluctuations and their interplay with volcanic and tectonic events. Seismo-stratigraphic interpretations to date show Pleistocene sediments to ~600m depth, but with few constraints on the basin fill down to more than 2.5 km. Future access to targeted drilling sites in the Danakil basin will give new insights into:

- (1) Tectonic, sedimentological, and stratigraphic understanding of intermittent and incipient basin dynamics during nascent passive margin development,
- (2) East African climatic changes and Hominin evolution,
- (3) The limits of the deep biosphere in extreme hypersaline and high-temperature environments below the salt deposits,
- (4) Natural fluid flow in an active geothermal system and sedimentary system,
- (5) Monitoring seismogenic faults, earthquakes and volcanoes in remote areas

We invite scientists, industry representatives, and students interested in participating in the workshop to apply by 30 April 2023 following the registration link at www.afardalloldrilling.com/events.

The scientific committee will make decisions on attendance and travel support (fully or partially) taking into account the relevance of the applicants' research to the goals of the workshop, the workshop budget, and the need for balanced disciplines. Preference will be given to participants from ICDP member countries. Early career scientists are encouraged to apply.

Local organizing committee - Balemwal Atnafu, Tesfaye Kidane, Worash Getaneh, Behailu Birhanu, Addis Endeshaw & Haileyesus Negga

Scientific committee - Balemwal Atnafu, Anneleen Foubert, Derek Keir & Tesfaye Kidane

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